

WHAT IS CLAIMED IS:

1. An electronic apparatus comprising:
  - a communication device;
  - a first storage device which buffers received data of the communication device;
  - a second storage device which stores the received data buffered in the first storage device;
  - 10 a calculation unit configured to calculate a remaining time until the first storage device becomes full of data, on the basis of a data transfer rate of the communication device and a free capacity of the first storage device; and
  - 15 a control unit configured to start up the second storage device when the remaining time calculated by the calculation unit reaches a predetermined time.
2. The apparatus according to claim 1, wherein the control unit stops the second storage device when the received data buffered in the first storage device has been stored in the second storage device after the second storage device is started up.
3. The apparatus according to claim 1, wherein the communication device executes packet communication, and
  - 25 the calculation unit calculates the data transfer rate of the communication device on the basis of reception times of two packets which are received successively and a data size per packet.

4. The apparatus according to claim 1, further comprising a battery, and the electronic apparatus is driven by electric power supplied from the battery.

5 5. The apparatus according to claim 1, wherein the communication device executes wireless communication.

10 6. The apparatus according to claim 1, further comprising a startup time holding unit configured to hold a startup time of the second storage device; and the control unit starts up the second storage device when the remaining time calculated by the calculation unit reaches the startup time held by the startup time holding unit.

15 7. The apparatus according to claim 6, wherein the control unit stops the second storage device when the received data buffered in the first storage device has been stored in the second storage device after the second storage device is started up.

20 8. The apparatus according to claim 6, wherein the control unit reflects an actual startup time in the startup time held by the startup time holding unit after the second storage device is started up.

25 9. The apparatus according to claim 6, wherein the communication device executes packet communication, and

the calculation unit calculates the data transfer rate of the communication device on the basis of

reception times of two packets which are received successively and a data size per packet.

10. The apparatus according to claim 6, further comprising a battery, and the electronic apparatus is  
5 driven by electric power supplied from the battery.

11. The apparatus according to claim 6, wherein the communication device executes wireless communication.

12. An electronic apparatus comprising:  
10 a communication device;  
a first storage device which buffers transmission data of the communication device;  
a second storage device which stores the transmission data to be buffered in the first storage  
15 device;  
a calculation unit configured to calculate a remaining time until data to be transmitted remaining in the first storage device are transmitted, on the basis of a data transfer rate of the communication  
20 device and a total capacity of the data to be transmitted which remain in the first storage device;  
and  
25 a control unit configured to start up the second storage device when the remaining time calculated by the calculation unit reaches a predetermined time.

13. A startup control method of a storage device, which is applied to an electronic apparatus which has a

communication device, a buffer unit that buffers received data of the communication device, and the storage device that stores the received data buffered in the buffer unit, comprising:

5 calculating a remaining time until the buffer unit becomes full of data, on the basis of a data transfer rate of the communication device and a free capacity of the buffer unit; and

10 starting up the storage device when the remaining time reaches a predetermined time.

14. The method according to claim 13, further comprising stopping the storage device when the received data buffered in the buffer unit has been stored in the storage device after the storage device 15 is started up.

15. The method according to claim 13, wherein the communication device executes packet communication, and the calculating includes calculating the data transfer rate of the communication device on the basis 20 of reception times of two packets which are received successively, and a data size per packet.

16. The method according to claim 13, the electronic apparatus has a startup time holding unit that holds a startup time of the storage device; and 25 the starting up includes starting up the storage device when the remaining time reaches the startup time held by the startup time holding unit.

17. The method according to claim 16, further comprising stopping the storage device when the received data buffered in the buffer unit has been stored in the storage device after the storage device  
5 is started up.

18. The method according to claim 16, further comprising reflecting an actual startup time in the startup time held by the startup time holding unit after the storage device is started up.

10 19. The method according to claim 16, wherein the communication device executes packet communication, and the calculating includes calculating the data transfer rate of the communication device on the basis of reception times of two packets which are received  
15 successively and a data size per packet.

20 20. A startup control method of a storage device, which is applied to an electronic apparatus which has a communication device, a buffer unit that buffers transmission data of the communication device, and the storage device that stores the transmission data to be buffered in the buffer unit, comprising:

25 calculating a remaining time until data to be transmitted remaining in the buffer unit are transmitted, on the basis of a data transfer rate of the communication device and a total capacity of the data to be transmitted which remains in the buffer unit; and

starting up the storage device when the remaining time reaches a predetermined time.